

REMARKS

The Office Action of May 15, 2007 has been reviewed and the comments therein were carefully considered. Claims 185-195, 198-212 are pending in this application. By this response, claims 185 and 212 have been amended. Claims 196 and 197 are canceled. The amendments are supported by the application as originally filed and no new subject matter has been added.

Rejections under 35 U.S.C. § 103

The Office Action of January 4, 2007 ("Office Action") rejected pending claims 185-212 as being unpatentable over Auzerie (FR 2770778 A1) ("Auzerie") in view of U.S. Patent No. 5,968,544 issued to Howard et al. ("Howard"), U.S. Patent No. 5,681,569 issued to Kuznicki et al. ("Kuznicki") and U.S. Patent 5,447,730 to Greenleaf. The Office Action also rejected Claim 210 in view of the above references and further in view of U.S. Patent No. 6,730,337 issued to Hutt et al. ("Hutt").

1. Rejection by Auzerie in View of Howard, Kuznicki, and Greenleaf

The Office Action alleges that the Auzerie reference discloses a rehydration solution composition as in Claim 185. Claim 185 has been amended to recite that sodium is present in an amount of 33 to about 40 mEq/L and chloride in an amount of 11 to about 18 mEq/L.

Auzeria does not teach or suggest the claimed composition. In particular, Auzeria requires 20 to about 75 mEq/L of chloride and 40-75 mEq/L of sodium. Although the sodium amount overlaps at 40 mEq/L, Auzeria clearly requires higher amounts of chloride and does not recognize that lower amounts of sodium can be effective in a rehydration beverage. It is our understanding that Auzeria's rehydration solution would be very salty and not acceptable as a rehydration beverage for use by, for example, athletes.

Attention is drawn to paragraphs [0006]-[0007] of the instant specification which describes the negative results of too much sodium. However, prior to the instant invention, it was not known that lower amounts of sodium could be used effectively when combined with even lower amounts of chloride to cause at least about 80% fluid retention in a human subject after exercise, wherein the beverage does not have a negative sensory attribute such as tasting too salty. Moreover, as discussed in paragraphs [0054]-[0057], the claimed formulation also improves voluntary fluid consumption. That is, consumption of the drink is improved which is contrast to drinks that quench thirst.

Howard does not remedy the defects of Auzeria. Howard discusses the use of sodium and chloride in his acidic drink; however, in each case, the amount of chloride exceeded the amount of sodium. See column 4, lines 18-22, and column 5, lines 33-37. Clearly Howard does not teach or suggest 33 to about 40 mEq/L sodium and 11 to about 18 mEq/L chloride. Moreover, Howard is directed to compositions that require creatine which apparently plays a pivotal role in the regulation and homeostasis of skeletal muscle energy metabolism. Auzeria is directed to a rehydration solution suitable for gastroenteritis and contains an antiseptic, prebiotic, intestinal transit modifier, or clay. There is no motivation to alter the solution of Auzeria intended for the particular treatment of gastroenteritis in view of a composition containing creatine. Moreover, Howard does not disclose the claimed amounts of sodium and chloride and even if Auzeria could be modified, one still does not arrive at the instant claims.

Kuznicki is directed to fluid composition containing flavanols, in particular, catechin, epicatechins and their derivatives. Such flavanols are obtained from tea extracts, for example. The flavanols significantly enhance cellular hydration. (See column 3, lines 36-37.) In addition to the flavanols, Kuznicki describes the use of fruit juice, aspartame, ascorbic acid, sodium

chloride, and sodium citrate, for example. See Examples 1 and 2. Kuznicki does not recognize any benefits to having at least over twice the amount of sodium ions to chloride ions. Nor does Kusnicki discuss osmolality. As evidenced by Greenleaf discussed below, the addition of carbohydrates can increase the osmolality of a solution taking it above the 350 desired by Auzeria.

Furthermore, Auzeria is directed to a rehydration solution suitable for gastroenteritis and contains an antiseptic, prebiotic, intestinal transit modifier, or clay. There is no motivation to alter the solution of Auzeria intended for the particular treatment of gastroenteritis in view of a composition containing flavanols.

Greenleaf describes rehydration beverages suitable for astronauts and air passengers. The rehydration drink “consist of a unique and specific combination of sodium chloride and sodium citrate in combination with the artificial sweetener aspartame.” Greenleaf does not utilize any carbohydrates and further shows that when carbohydrates are included such as in comparative drink compositions V, VI, and VII, the osmolality was 380 and above. Thus, one skilled in the art would not have been motivated to use three carbohydrate sources as shown in comparative drink compositions VI and VII as the osmolality would have been too high.

None of the references cited in the Office Action, either by themselves or as part of a combination, disclose, suggest or provide any motivation to use the specific ranges of ingredients found in Claims 185 and 212 in order to achieve the limitations described above. Withdrawal of the instant rejection is requested.

2. Rejection by Auzerie in View of Howard and Kuznicki Further in View of Hutt

The Office Action further states that “it would have been obvious to use known ingredients such as citric acid for its known function of adding acidity in the composition of the

combined references.” See page 5. Claim 210 is dependent on Claim 199, which depends from Claim 185. Auzeria combined with Howard, Kuznicki, and Greenleaf do not teach or suggest the instant claims for the reasons provided above. Hutt does not remedy the defects of the combination. Hutt is directed to an isotonic fruit drink for children containing calcium and vitamin C. Hutt does not teach chloride or an amount of chloride combined with sodium to provide at least about 80% fluid retention in a human subject after exercise, wherein the beverage does not have a negative sensory attribute.

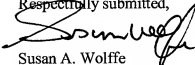
For at least these reasons, the references cited in the Office Action fail to disclose, suggest or provide motivation to arrive at the claimed limitations. Applicants respectfully request that the rejection be removed and the claims be allowed as written.

CONCLUSION

All rejections having been addressed, applicant respectfully submits that the instant application is in condition for allowance, and respectfully solicits prompt notification of the same. Should the Examiner have any questions, the Examiner is invited to contact the undersigned at the number set forth below.

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Respectfully submitted,


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